EXHIBIT 7

UMBRA TECHNOLOGIES LTD.'S FIRST INFRINGEMENT ANALYSIS

U.S. Patent No. 11,108,595 – Defendant Cisco Systems, Inc. - UMBRA Technologies Ltd. ("UMBRA")

Claims 1, 2, 4, 8, 12-15, 17 & 20

UMBRA Technologies Ltd. ("UMBRA") provides evidence of infringement of claims 1, 2, 4, 8, 12-15, 17 and 20 of U.S. Patent No. 11,108,595 (hereinafter "the '595 patent") by Cisco Systems, Inc. ("Cisco"). In support thereof, UMBRA provides the following claim charts.

"Accused Instrumentalities" as used herein refers to at least Cisco systems and methods, including one or more hardware and software products for network virtualization and related services, which by way of example include but are not limited to Cisco Secure Access Service Edge (SASE) (*see, e.g.*, Cisco SASE, https://www.cisco.com/site/us/en/solutions/secure-access-service-edge-sase/index.html#tabs-9cfa4a460b-item-b8ba101fed-tab), Cisco Software Defined-WAN (*see, e.g.*, Cisco SD-WAN, https://www.cisco.com/c/en_ph/solutions/enterprise-networks/sd-wan/index.html), Cisco Security Service Edge (SSE) *(see, e.g.*, Cisco SSE, https://www.cisco.com/site/us/en/solutions/security-service-edge-sse/index.html#tabs-9e2187ae1d-item-8d800bd1e7-tab), and Cisco HyperFlex Systems (Hyper Converged Infrastructure or "HCI") *(see, e.g.*, Cisco HCI, https://www.cisco.com/site/us/en/products/computing/hyperconverged-infrastructure/index.html#tabs-9cfa4a460b-item-b8ba101fed-tab) and related earlier versions (the "Accused Instrumentalities"). These claim charts demonstrate Cisco's infringement, and provide notice of such infringement, by comparing each element of the asserted claims to corresponding components, aspects, and/or features of the Accused Instrumentalities. These claim charts are not intended to constitute an expert report on infringement. These claim charts include information provided by way of example, and not by way of limitation.

The analysis set forth below is based only upon information from publicly available resources regarding the Accused Instrumentalities, as Cisco has not yet provided any non-public information. An analysis of Cisco's (or other third parties') technical documentation and/or software source code may assist in fully identifying all infringing features and functionality. Accordingly, UMBRA reserves the right to supplement this infringement analysis once such information is made available to UMBRA. Furthermore, UMBRA reserves the right to revise this infringement analysis, as appropriate, upon issuance of a court order construing any terms recited in the asserted claims. UMBRA provides this evidence of infringement and related analysis without the benefit of claim construction or expert reports or discovery. UMBRA reserves the right to supplement, amend or otherwise modify this analysis and/or evidence based on any such claim construction or expert reports or discovery.

 Note: All internet sources last accessed and downloaded July 31, 2023.

UMBRA TECHNOLOGIES LTD.'S FIRST INFRINGEMENT ANALYSIS

U.S. Patent No. 11,108,595 – Defendant Cisco Systems, Inc. - UMBRA Technologies Ltd. ("UMBRA")

Claims 1, 2, 4, 8, 12-15, 17 & 20

Unless otherwise noted, UMBRA contends that Cisco directly infringes the '595 patent in violation of 35 U.S.C. § 271(a) by selling, offering to sell, making, using, and/or importing the Accused Instrumentalities. The following exemplary analysis demonstrates that infringement. Unless otherwise noted, UMBRA further contends that the evidence below supports a finding of indirect infringement under 35 U.S.C. §§ 271(b) and/or (c), in conjunction with other evidence of liability under one or more of those subsections. Cisco makes, uses, sells, imports, or offers for sale in the United States, or has made, used, sold, imported, or offered for sale in the past, without authority, or induces others to make, use, sell, import, or offer for sale in the United States, or has induced others to make, use, sell, import, or offer for sale in the past, without authority products, equipment, or services that infringe claims 1, 2, 4, 8, 12-15, 17 & 20 of the '595 patent, including without limitation, the Accused Instrumentalities.

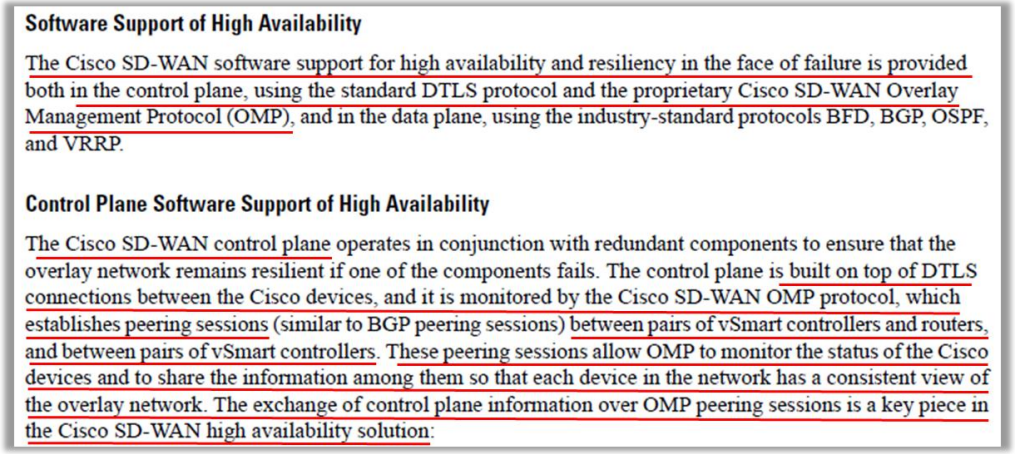
Unless otherwise noted, UMBRA believes and contends that each element of each claim asserted herein is literally met through Cisco's provision of the Accused Instrumentalities. However, to the extent that Cisco attempts to allege that any asserted claim element is not literally met, UMBRA believes and contends that such elements are met under the doctrine of equivalents. More specifically, in its investigation and analysis of the Accused Instrumentalities, UMBRA did not identify any substantial differences between the elements of the patent claims and the corresponding features of the Accused Instrumentalities, as set forth herein. In each instance, the identified feature of the Accused Instrumentalities performs at least substantially the same function in substantially the same way to achieve substantially the same result as the corresponding claim element.

To the extent the chart of an asserted claim relies on evidence about certain specifically identified Accused Instrumentalities, UMBRA asserts that, on information and belief, any similarly functioning instrumentalities also infringes the charted claim. UMBRA reserves the right to amend this infringement analysis based on other products made, used, sold, imported, or offered for sale by Cisco. UMBRA also reserves the right to amend this infringement analysis by citing other claims of the '595 patent, not listed in the claim chart, that are infringed by the Accused Instrumentalities. UMBRA further reserves the right to amend this infringement analysis by adding, subtracting, or otherwise modifying content in the "Accused Instrumentalities" column of each chart.

UMBRA TECHNOLOGIES LTD.'S FIRST INFRINGEMENT ANALYSIS

U.S. Patent No. 11,108,595 – Defendant Cisco Systems, Inc. - UMBRA Technologies Ltd. ("UMBRA")

Claims 1, 2, 4, 8, 12-15, 17 & 20

Claim #1	Accused Instrumentalities
Indep.Cl. 1 1-p 1. A method comprising:	The Cisco SD-WAN control plane implements the claimed method. "The Cisco SD-WAN software support for high availability and resiliency in the face of failure is provided … in the control plane, using the standard DTLS protocol and the proprietary Cisco SD-WAN Overlay Management Protocol (OMP)… The control plane is built on top of DTLS connections between the Cisco devices, and it is monitored by the Cisco SD-WAN OMP protocol, which establishes peering sessions … between pairs of vSmart controllers and routers, and between pairs of vSmart controllers. These peering sessions allow OMP to monitor the status of the Cisco devices and to share the information among them so that each device in the network has a consistent view of the overlay network."  **Software Support of High Availability** The Cisco SD-WAN software support for high availability and resiliency in the face of failure is provided both in the control plane, using the standard DTLS protocol and the proprietary Cisco SD-WAN Overlay Management Protocol (OMP), and in the data plane, using the industry-standard protocols BFD, BGP, OSPF, and VRRP. **Control Plane Software Support of High Availability** The Cisco SD-WAN control plane operates in conjunction with redundant components to ensure that the overlay network remains resilient if one of the components fails. The control plane is built on top of DTLS connections between the Cisco devices, and it is monitored by the Cisco SD-WAN OMP protocol, which establishes peering sessions (similar to BGP peering sessions) between pairs of vSmart controllers and routers, and between pairs of vSmart controllers. These peering sessions allow OMP to monitor the status of the Cisco devices and to share the information among them so that each device in the network has a consistent view of the overlay network. The exchange of control plane information over OMP peering sessions is a key piece in the Cisco SD-WAN high availability solution: . Source: Network Optimization and High Availability Configuration Guide, Cisco IOS XE SD-WAN Releases 16.11, 16.12, p.76 (pdf p.80), https://www.cisco.com/c/en/us/td/docs/routers/sdwan/configuration/optimization-ha/ios-xe-16/network-optimization-high-availability-book-xe/high-availability-and-scaling-xe-sdwan.html#id_114530 (annotations added)

UMBRA TECHNOLOGIES LTD.'S FIRST INFRINGEMENT ANALYSIS

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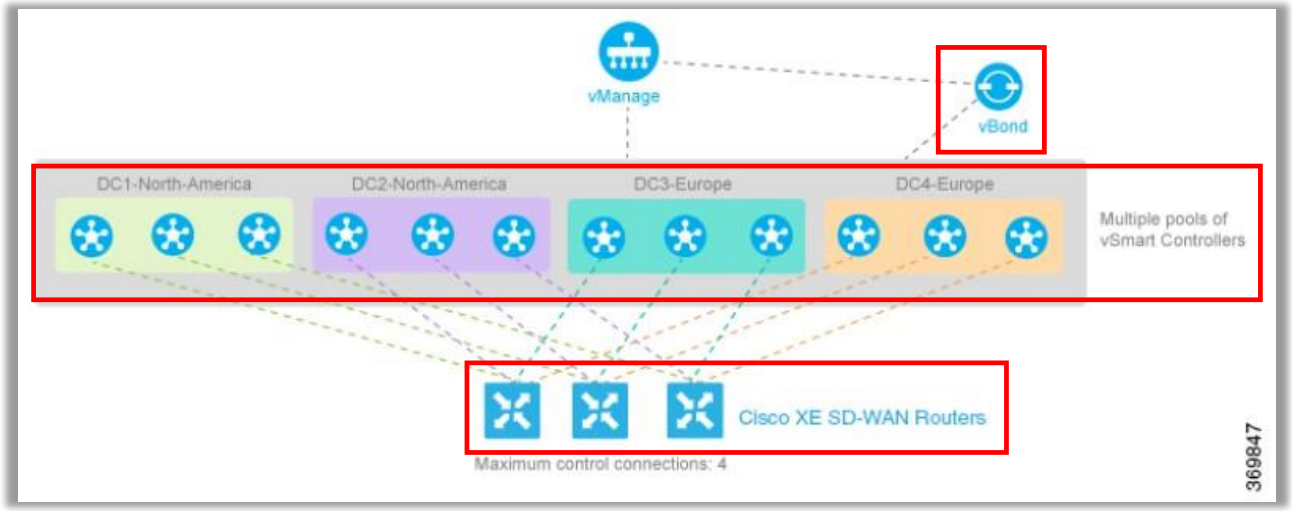
Claims 1, 2, 4, 8, 12-15, 17 & 20

1-a receiving, by one or more computer processors, a request for a list of available servers from a network device;	When the "vBond orchestrator" computer processor detects that a "Cisco XE SD-Wan Router", i.e., network device wants to join the network, it maps the network access request to a request for available "vSmart controller"servers. The "vBond Orchestrator" software component run on one or more computers and communicates with "Cisco XE SD-Wan Routers", i.e., network devices and "vSmart Controller" servers using the the proprietary Cisco SD-WAN Overlay Management Protocol (OMP) and the standard DTLS protocol.  Source: Network Optimization and High Availability Configuration Guide, Cisco IOS XE SD-WAN Releases 16.11, 16.12, p.79 (pdf p.83), https://www.cisco.com/c/en/us/td/docs/routers/sdwan/configuration/optimization-ha/ios-xe-16/network-optimization-high-availability-book-xe/high-availability-and-scaling-xe-sdwan.html#id_114530 (annotations added) "The exchange of control plane information over OMP peering sessions is a key piece in the Cisco SD-WAN high availability solution: … • vBond orchestrators quickly and automatically learn when a device joins the network"

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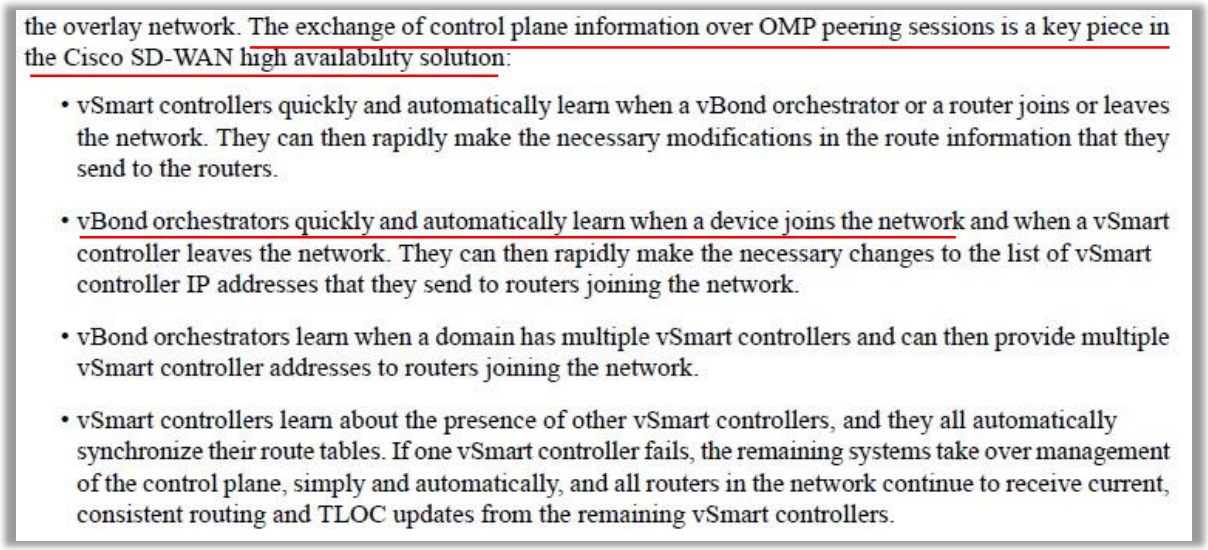
1-a Cont.	 the overlay network. The exchange of control plane information over OMP peering sessions is a key piece in the Cisco SD-WAN high availability solution: • vSmart controllers quickly and automatically learn when a vBond orchestrator or a router joins or leaves the network. They can then rapidly make the necessary modifications in the route information that they send to the routers. • vBond orchestrators quickly and automatically learn when a device joins the network and when a vSmart controller leaves the network. They can then rapidly make the necessary changes to the list of vSmart controller IP addresses that they send to routers joining the network. • vBond orchestrators learn when a domain has multiple vSmart controllers and can then provide multiple vSmart controller addresses to routers joining the network. • vSmart controllers learn about the presence of other vSmart controllers, and they all automatically synchronize their route tables. If one vSmart controller fails, the remaining systems take over management of the control plane, simply and automatically, and all routers in the network continue to receive current, consistent routing and TLOC updates from the remaining vSmart controllers. Source: Network Optimization and High Availability Configuration Guide, Cisco IOS XE SD-WAN Releases 16.11, 16.12, p.76 (pdf p.80), https://www.cisco.com/c/en/us/td/docs/routers/sdwan/configuration/optimization-ha/ios-xe-16/network-optimization-high-availability-book-xe/high-availability-and-scaling-xe-sdwan.html#id_114530 (annotations added)

1-b retrieving, by the one or more computer processors, the list of available servers;	The "vBond orchestrator" computer processor automatically learns the addresses, i.e., list of available "vSmart" controller servers. "The exchange of control plane information over OMP peering sessions is a key piece in the Cisco SD-WAN high availability solution: … • vBond orchestrators quickly and automatically learn when a device joins the network and when a vSmart controller leaves the network. … • vBond orchestrators learn when a domain has multiple vSmart controllers and can then provide multiple vSmart controller addresses to routers joining the network." the overlay network. The exchange of control plane information over OMP peering sessions is a key piece in the Cisco SD-WAN high availability solution: • vSmart controllers quickly and automatically learn when a vBond orchestrator or a router joins or leaves the network. They can then rapidly make the necessary modifications in the route information that they send to the routers. • vBond orchestrators quickly and automatically learn when a device joins the network and when a vSmart controller leaves the network. They can then rapidly make the necessary changes to the list of vSmart controller IP addresses that they send to routers joining the network. • vBond orchestrators learn when a domain has multiple vSmart controllers and can then provide multiple vSmart controller addresses to routers joining the network. • vSmart controllers learn about the presence of other vSmart controllers, and they all automatically synchronize their route tables. If one vSmart controller fails, the remaining systems take over management of the control plane, simply and automatically, and all routers in the network continue to receive current, consistent routing and TLOC updates from the remaining vSmart controllers. Source: Network Optimization and High Availability Configuration Guide, Cisco IOS XE SD-WAN Releases 16.11, 16.12, p.76 (pdf p.80), https://www.cisco.com/c/en/us/td/docs/routers/sdwan/configuration/optimization-ha/ios-xe-16/network-optimization-high-availability-book-xe/high-availability-and-scaling-xe-sdwan.html#id_114530_ (annotations added)

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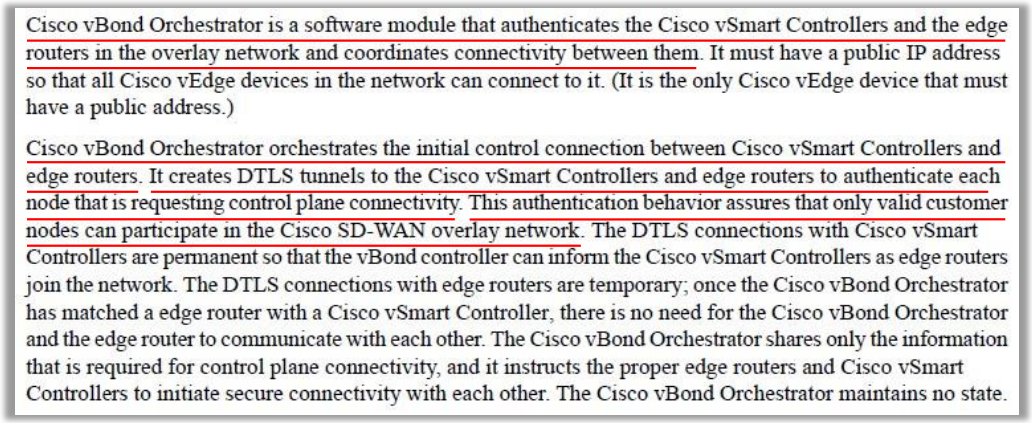
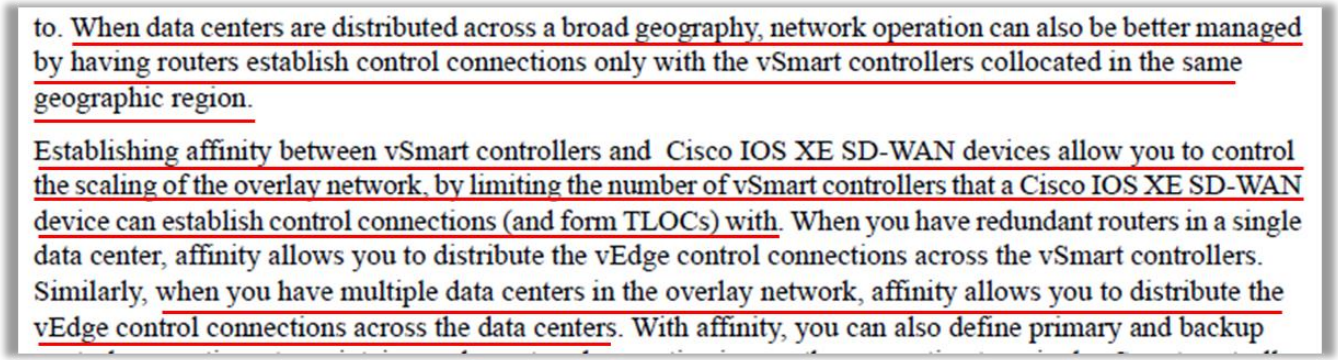
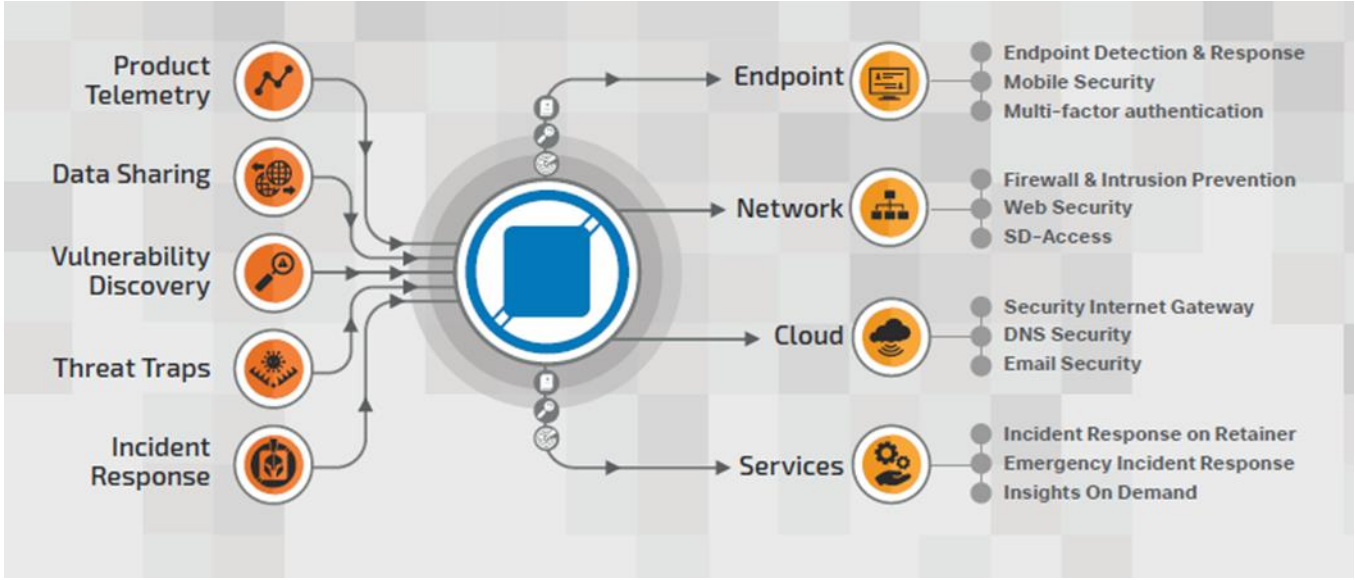
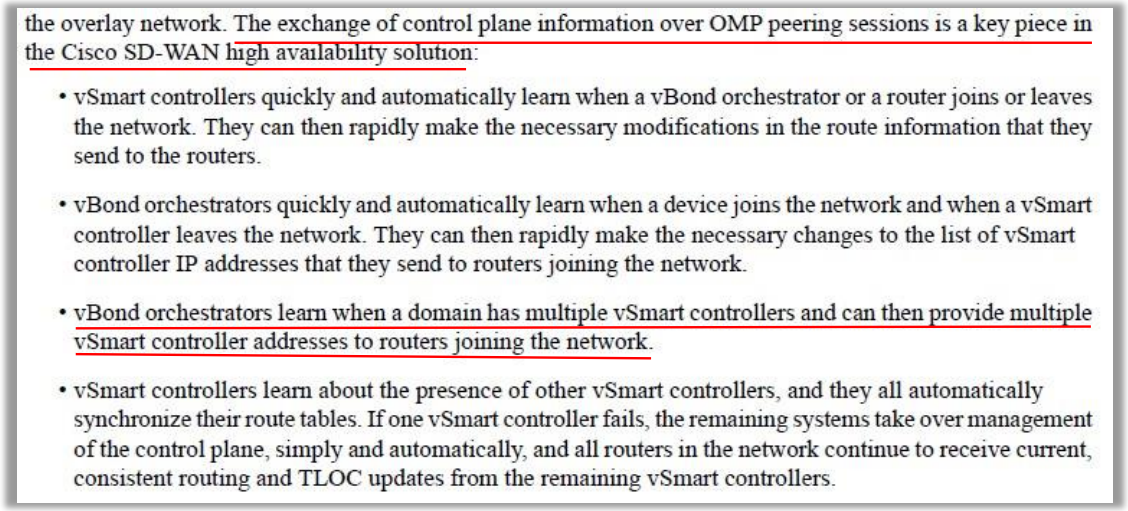
Claims 1, 2, 4, 8, 12-15, 17 & 20

1-c retrieving, by the one or more computer processors, one or more records associated with the network device;	The "vBond Orchestrator" computer processor "creates a DTLS tunnel .. to the edge routert to authenticate it" for control plane connectivity., i.e., retrieves one or more records associated with the "Cisco XE SD-Wan Router" network device. "Cisco vBond Orchestrator is a software module that authenticates the Cisco vSmart Controllers and the edge routers in the overlay network and coordinates connectivity between them." "Cisco vBond Orchestrator orchestrates the initial control connection between Cisco vSmart Controllers and edge routers. It creates DTLS tunnels to the Cisco vSmart Controllers and edge routers to authenticate each node that is requesting control plane connectivity. This authentication behavior assures that only valid customer nodes can participate in the Cisco SD-WAN overlay network."  Cisco vBond Orchestrator is a software module that authenticates the Cisco vSmart Controllers and the edge routers in the overlay network and coordinates connectivity between them. It must have a public IP address so that all Cisco vEdge devices in the network can connect to it. (It is the only Cisco vEdge device that must have a public address.) Cisco vBond Orchestrator orchestrates the initial control connection between Cisco vSmart Controllers and edge routers. It creates DTLS tunnels to the Cisco vSmart Controllers and edge routers to authenticate each node that is requesting control plane connectivity. This authentication behavior assures that only valid customer nodes can participate in the Cisco SD-WAN overlay network. The DTLS connections with Cisco vSmart Controllers are permanent so that the vBond controller can inform the Cisco vSmart Controllers as edge routers join the network. The DTLS connections with edge routers are temporary; once the Cisco vBond Orchestrator has matched a edge router with a Cisco vSmart Controller, there is no need for the Cisco vBond Orchestrator and the edge router to communicate with each other. The Cisco vBond Orchestrator shares only the information that is required for control plane connectivity, and it instructs the proper edge routers and Cisco vSmart Controllers to initiate secure connectivity with each other. The Cisco vBond Orchestrator maintains no state. Source: Cisco SD-WAN Getting Started Guide, p.16 (pdf p.30), https://www.cisco.com/c/en/us/td/docs/routers/sdwan/configuration/sdwan-xe-gs-book/cisco-sd-wan-overlay-network-bringup.html (annotations added) NOTE: "records associated with the network device" may include information regarding adding capacity via a joining or reduction of capacity via leaving --- as this can impact network performance. A server availability list may keep track of this activity and contextually, based on the device that it sends the list to, custom caters it to that device.

1-d dynamically ordering, by the one or more computer processors, the list of available servers based on the one or more records associated with the network device; and	Based on the established "affinity" between vSmart controllers and Cisco IOS XE SD-WAN devices, the "vBond Orchestrator" computer processor dynamically orders the list of available vSmart Controller servers that are available for connection based on the records associated with a Cisco XE SD-Wan Router. NOTE: Affinity allows you to distribute the vEdge control connections across the vSmart controllers.  to. When data centers are distributed across a broad geography, network operation can also be better managed by having routers establish control connections only with the vSmart controllers collocated in the same geographic region. Establishing affinity between vSmart controllers and Cisco IOS XE SD-WAN devices allow you to control the scaling of the overlay network, by limiting the number of vSmart controllers that a Cisco IOS XE SD-WAN device can establish control connections (and form TLOCs) with. When you have redundant routers in a single data center, affinity allows you to distribute the vEdge control connections across the vSmart controllers. Similarly, when you have multiple data centers in the overlay network, affinity allows you to distribute the vEdge control connections across the data centers. With affinity, you can also define primary and backup Source: Network Optimization and High Availability Configuration Guide, Cisco IOS XE SD-WAN Releases 16.11, 16.12, p.77 (pdf p.81), https://www.cisco.com/c/en/us/td/docs/routers/sdwan/configuration/optimization-ha/ios-xe-16/network-optimization-high-availability-book-xe/high-availability-and-scaling-xe-sdwan.html#id_114530_ (annotations added)

1-d Cont.	See also:  Source image from PDF: https://talosintelligence.com/docs/Talos_WhitePaper (not available) NOTE: Cisco Talos involves a security focused network analysis. It has integrated network functionality and also gets inputs from "Telemetry" and processed information is sent to and has an affect on "Endpoint" and "Network", "Cloud", and "Services". SIG – "Secure Internet Gateway" – is also an endpoint in the network. Security information can also impact the availability calculations due to conditions on the underlay network.

1-e transmitting, by the one or more computer processors, the ordered list of available servers to the network device.	The "vBond orchestrator" computer processor provides multiple vSmart controller addresses, i.e., ordered list of available servers to the "Cisco XE SD-Wan Router" network device. The "vBond orchestrator" computer processor automatically learns the addresses, i.e., list of available "vSmart" controller servers. "The exchange of control plane information over OMP peering sessions is a key piece in the Cisco SD-WAN high availability solution: … • vBond orchestrators learn when a domain has multiple vSmart controllers and can then provide (or "transmit") multiple vSmart controller addresses to routers joining the network."  the overlay network. The exchange of control plane information over OMP peering sessions is a key piece in the Cisco SD-WAN high availability solution: • vSmart controllers quickly and automatically learn when a vBond orchestrator or a router joins or leaves the network. They can then rapidly make the necessary modifications in the route information that they send to the routers. • vBond orchestrators quickly and automatically learn when a device joins the network and when a vSmart controller leaves the network. They can then rapidly make the necessary changes to the list of vSmart controller IP addresses that they send to routers joining the network. • vBond orchestrators learn when a domain has multiple vSmart controllers and can then provide multiple vSmart controller addresses to routers joining the network. • vSmart controllers learn about the presence of other vSmart controllers, and they all automatically synchronize their route tables. If one vSmart controller fails, the remaining systems take over management of the control plane, simply and automatically, and all routers in the network continue to receive current, consistent routing and TLOC updates from the remaining vSmart controllers. Source: Network Optimization and High Availability Configuration Guide, Cisco IOS XE SD-WAN Releases 16.11, 16.12, p.76 (pdf p.80), https://www.cisco.com/c/en/us/td/docs/routers/sdwan/configuration/optimization-ha/ios-xe-16/network-optimization-high-availability-book-xe/high-availability-and-scaling-xe-sdwan.html#id_114530 (annotations added)

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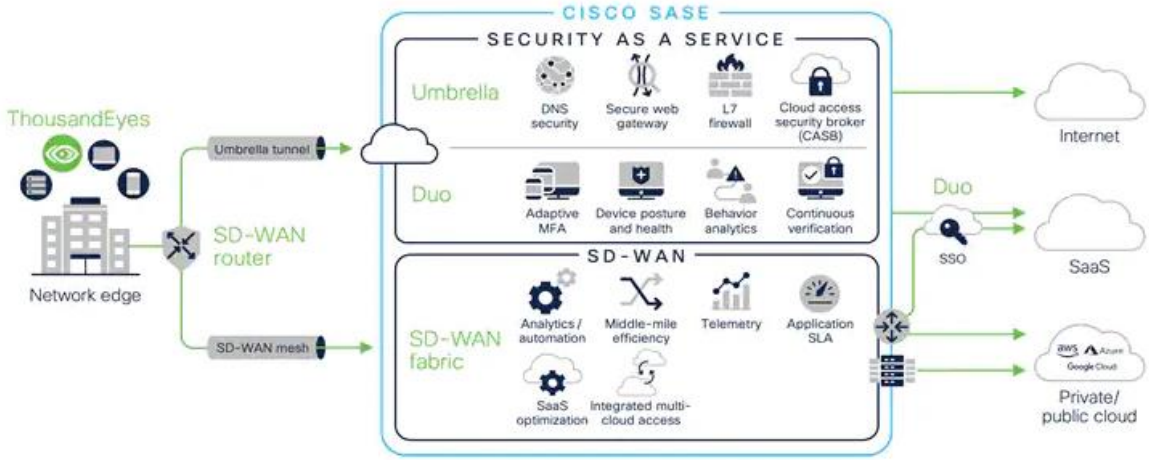
Claims 1, 2, 4, 8, 12-15, 17 & 20

Claim #2	Accused Instrumentalities
2. The method of claim 1, wherein the network device is an endpoint device.	See: https://www.cisco.com/c/en/us/solutions/collateral/executive-perspectives/sase-cx-deployment.html  Image: https://www.cisco.com/c/dam/en/us/solutions/collateral/executive-perspectives/sase-cx-deployment.docx/_jcr_content/renditions/sase-cx-deployment_12.png NOTE: The "Network edge" (see left on figure) can be an endpoint device. Each device can share information with a central processing system (vSmart controllers and vBond orchestrators) – via "Analytics" and through "automation" is shared with devices to achieve "Middle-mile efficiency" via changes made through "automation". Ongoing "Telemetry" is a constant feed of information to the central processing system to calculate the performance of the entire network, and to plot best routes based on ever changing information and to ensure that these changes do not adversely affect performance through spreading out the load so that no single point is over stressed as a result of the changes.

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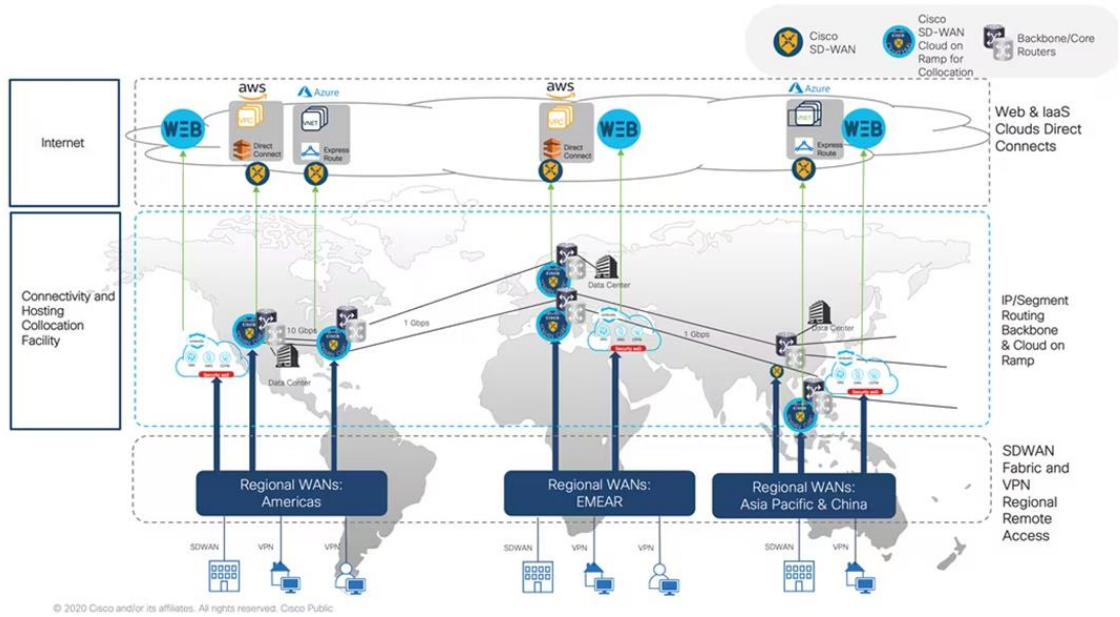
U.S. Patent No. 11,108,595 – Defendant Cisco Systems, Inc. - UMBRA Technologies Ltd. ("UMBRA")

Claims 1, 2, 4, 8, 12-15, 17 & 20

Claim #4	Accused Instrumentalities
4. The method of claim 1, further comprising anticipating a level of demand for at least one server among the list of available servers, and wherein dynamically ordering the list of available servers is further based on the anticipated level of demand.	See:  Source: https://www.cisco.com/c/dam/en/us/solutions/collateral/executive-perspectives/sase-cx-deployment.docx/_jcr_content/renditions/sase-cx-deployment_6.png NOTE: In addition to changes due to devices joining or leaving the network at the base layer, where the overlay network may adjust, there are other factors that may affect anticipated level of demand. Specifically, the passage of time in a country or region will often affect its region and other regions. For example, between 9 am and 10 am, workers go into their office and retrieve email, download files, initiate video conferences, and access information may increase load locally; transatlantic traffic may also increase load and affect European and Asian networks if the other end of the connection(s) are in those regions.

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Claims 1, 2, 4, 8, 12-15, 17 & 20

Claim #8	Accused Instrumentalities
Indep. Clm. 8. A system comprising: a memory storing instructions; and one or more processors coupled to the memory, the one or more processors being configured to execute the instructions, the instructions when executed causing the one or more	See Cisco SD-WAN system described above at independent claim 1, at 1-p.

processors to perform operations comprising:	
receiving a request for a list of available servers from a network device;	See Cisco SD-WAN system described above at independent claim 1, at 1-a.
retrieving the list of available servers;	See Cisco SD-WAN system described above at independent claim 1, at 1-b.
retrieving one or more records associated with the network device;	See Cisco SD-WAN system described above at independent claim 1, at 1-c.

dynamically ordering the list of available servers based on the one or more records associated with the network device;	See Cisco SD-WAN system described above at independent claim 1, at 1-d.
and transmitting the ordered list of available servers to the network device.	See Cisco SD-WAN system described above at independent claim 1, at 1-e.

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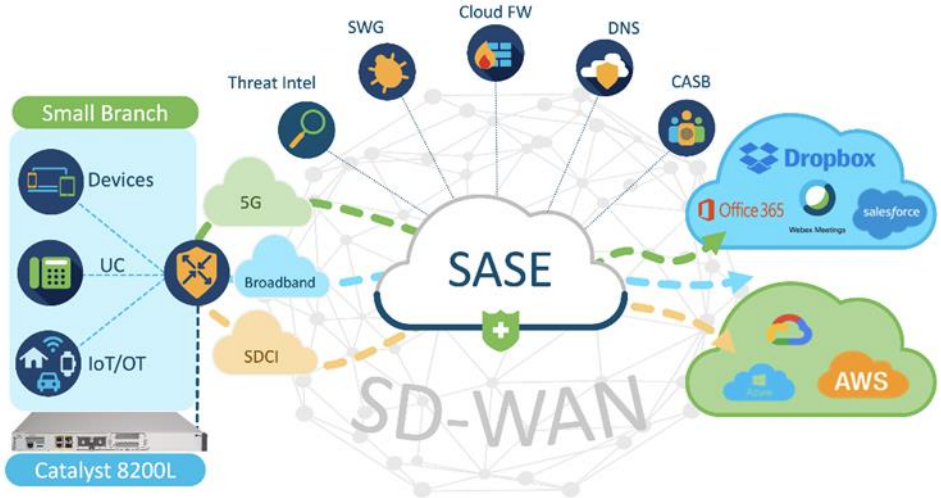
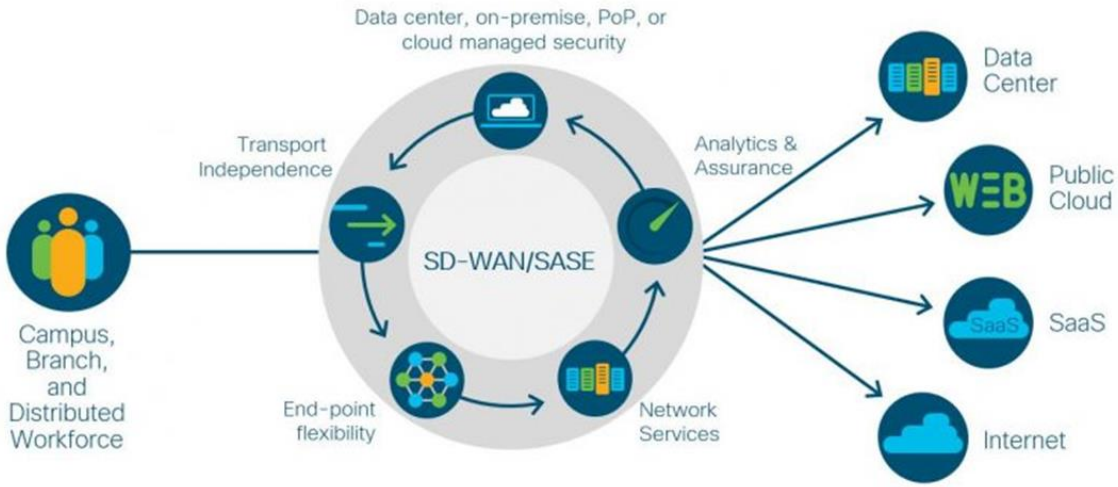
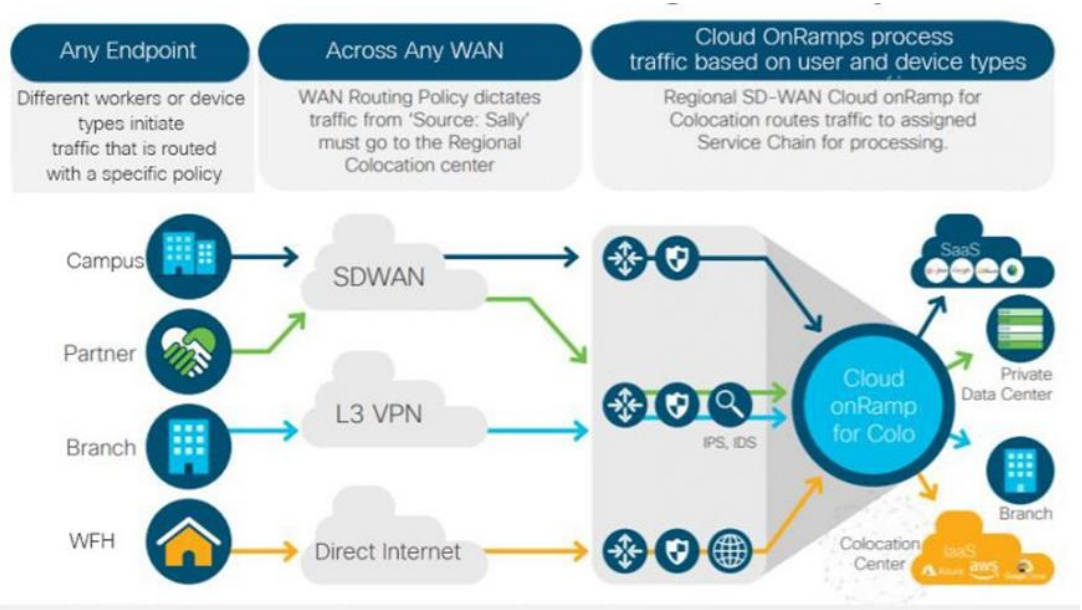
Claim #12	Accused Instrumentalities
12. The system of claim 8, wherein dynamically ordering the list of available servers is further based on one or more second ordered lists of available servers transmitted to one or more second network devices.	See: https://blogs.cisco.com/networking/introducing-the-catalyst-8200l-sase-deployments-for-small-branch  Figure 1. Cisco Catalyst 8200L Edge Platforms boost SD-WAN and SASE performance "Performance Enhancements" – "Cloud networking and security need performance to deliver benefits. These architectures are more distributed and complex despite their simple consumption models." … "Connecting the next branch requires fast, reliable and secure cloud connections from anywhere." … "As you plan to connect, secure and automate your business," NOTE: The overlay network takes factors into consideration to plot a path to various resources. The light gray points in Figure 1 demonstrate some of the complexity at the base layer. Routes to endpoints such as the green dotted path to cloud-based services, or yellow to cloud based storage and utility or SaaS (software as a service) resources, or light blue to other internet addresses.

Clm. 12. Cont.	Also see: https://blogs.cisco.com/networking/sase-and-secure-sd-wan-with-one-sd-architecture  Image Source: https://storage.googleapis.com/blogs-images/ciscoblogs/1/2020/11/IBN-SD-WAN-2-768x354.jpg "Focus on Establishing the Necessary Security and Performance Policies Instead of Where Security is Applied These examples demonstrate that there are optimal use cases for both SASE and Secure SD-WAN. A Software-Defined Architecture that supports both enables IT to implement security and network performance policies that are most appropriate for the changing workplace and workforce. Effective enterprise-wide security policy management should focus less on where the security functions are implemented and more on the types of policies that need to be enabled to protect data, applications, and devices while providing optimal performance for the workforce."

Clm. 12. Cont.	Also see: https://blogs.cisco.com/networking/sase-and-secure-sd-wan-with-one-sd-architecture  NOTE: In figure above the "SDWAN" under "Across Any WAN" has multiple servers in the middle, the "Regional SD-WAN Cloud on Ramp for Colocation routes traffic to assigned Service Chain for processing. The chain of available servers is contextual based on source and ultimate destination and each server in the middle gets its own list based on the conditions contextually relative to it.

UMBRA TECHNOLOGIES LTD.'S FIRST INFRINGEMENT ANALYSIS

U.S. Patent No. 11,108,595 – Defendant Cisco Systems, Inc. - UMBRA Technologies Ltd. ("UMBRA")

Claims 1, 2, 4, 8, 12-15, 17 & 20

Claim #13	Accused Instrumentalities
13. The system of claim 8, wherein dynamically ordering the list of available servers comprises generating ranking information for each server in the list of available servers.	See Cisco SD-WAN system described above at independent claim 8 and claim 12.

UMBRA TECHNOLOGIES LTD.'S FIRST INFRINGEMENT ANALYSIS

U.S. Patent No. 11,108,595 – Defendant Cisco Systems, Inc. - UMBRA Technologies Ltd. ("UMBRA")

Claims 1, 2, 4, 8, 12-15, 17 & 20

Claim #14	Accused Instrumentalities
14. The system of claim 8, wherein the one or more records are retrieved based on a unique device identity associated with the network device.	See Cisco SD-WAN system described above at independent claim 8 and claim 12.

UMBRA TECHNOLOGIES LTD.'S FIRST INFRINGEMENT ANALYSIS

U.S. Patent No. 11,108,595 – Defendant Cisco Systems, Inc. - UMBRA Technologies Ltd. ("UMBRA")

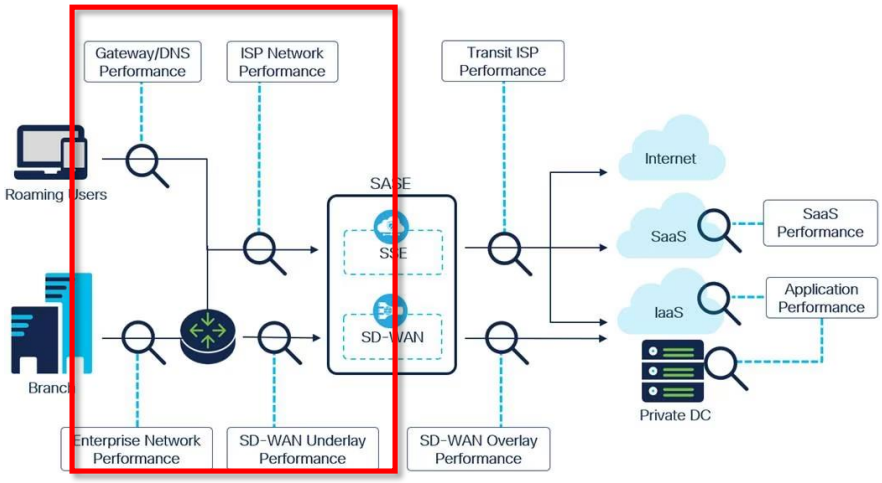
Claims 1, 2, 4, 8, 12-15, 17 & 20

Claim #15	Accused Instrumentalities
Indep. Clm. 15. 15-p A network system for managing a global virtual network, comprising:	See Cisco SD-WAN system described above at independent claims 1 and 8.

UMBRA TECHNOLOGIES LTD.'S FIRST INFRINGEMENT ANALYSIS

U.S. Patent No. 11,108,595 – Defendant Cisco Systems, Inc. - UMBRA Technologies Ltd. ("UMBRA")

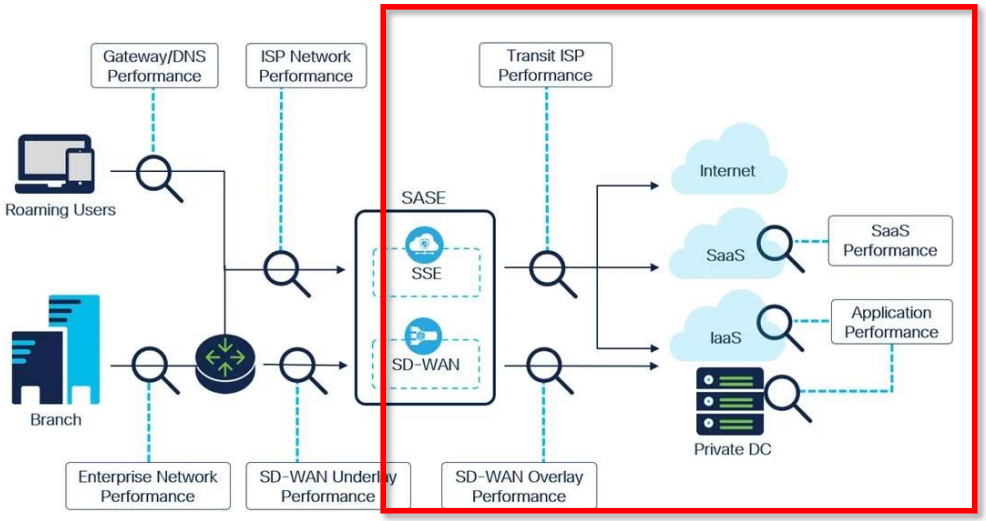
Claims 1, 2, 4, 8, 12-15, 17 & 20

15-a an access point server configured to connect to one or more endpoint devices via one or more first tunnels; and	See: https://www.cisco.com/c/en/us/solutions/collateral/enterprise/design-zone-security/sase-sse-ag.html Page Source: https://www.cisco.com/c/en/us/solutions/collateral/enterprise/design-zone-security/sase-sse-ag.html  Image Source: https://www.cisco.com/c/dam/en/us/solutions/collateral/enterprise/design-zone-security/sase-sse-ag.docx/_jcr_content/renditions/sase-sse-ag_10.jpg **Figure 11.** Digital Experience Monitoring Overview The Digital Experience Monitoring component of a SASE or SSE architecture should have the following qualities: • Provide metrics to improve the Digital Experience for users no matter where they are or what application they are using • Provide lower Mean Time to Identification (MTTI) of issues • Eliminate wasteful finger-pointing between teams • Hold providers accountable and get swift resolutions NOTE: The "access point server" for a "first tunnel" is the SASE with SSE and SD-WAN - the second endpoint are on the right side of the above figure. The traffic flows from the SD-WAN and SSE (secure service edge) servers in the cloud to the second endpoint.

UMBRA TECHNOLOGIES LTD.'S FIRST INFRINGEMENT ANALYSIS

U.S. Patent No. 11,108,595 – Defendant Cisco Systems, Inc. - UMBRA Technologies Ltd. ("UMBRA")

Claims 1, 2, 4, 8, 12-15, 17 & 20

15-b a control server connected to the access point server via a second tunnel, the control server storing one or more records associated with each of the one or more endpoint devices,	See: https://www.cisco.com/c/en/us/solutions/collateral/enterprise/design-zone-security/sase-sse-ag.html Page Source: https://www.cisco.com/c/en/us/solutions/collateral/enterprise/design-zone-security/sase-sse-ag.html  Image Source: https://www.cisco.com/c/dam/en/us/solutions/collateral/enterprise/design-zone-security/sase-sse-ag.docx/_jcr_content/renditions/sase-sse-ag_10.jpg **Figure 11.** Digital Experience Monitoring Overview NOTE: the second endpoint for a "second tunnel" is on the right side of the above figure. The traffic flows from the SD-WAN and SSE (secure service edge) servers in the cloud to the second endpoint.

15-c wherein the control server is configured to: receive a request for a list of available servers from a first endpoint device among the one or more endpoint devices, the list of available servers including the access point server; retrieve the list of available servers;	See Cisco SD-WAN system described above at independent claims 1 and 8.

retrieve the one or more records associated with the first endpoint device; dynamically order the list of available servers for the first endpoint device based on the one or more records associated with the network device; and transmit the ordered list of available servers to the first endpoint device.	See Cisco SD-WAN system described above at independent claims 1 and 8.

UMBRA TECHNOLOGIES LTD.'S FIRST INFRINGEMENT ANALYSIS

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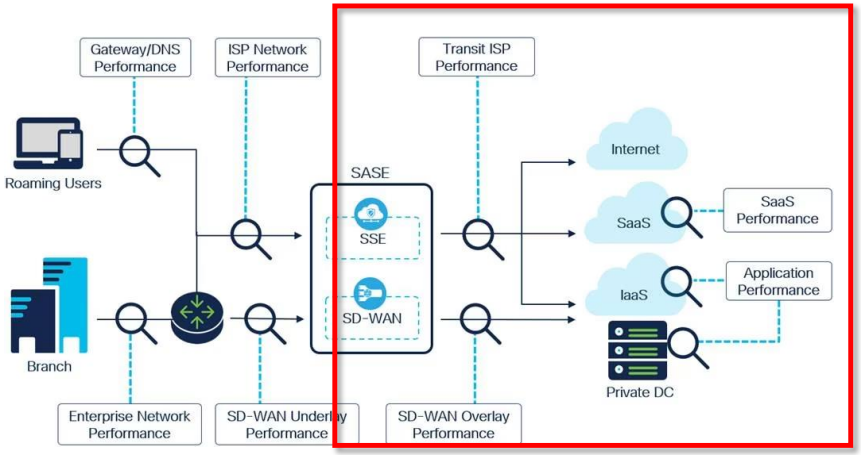
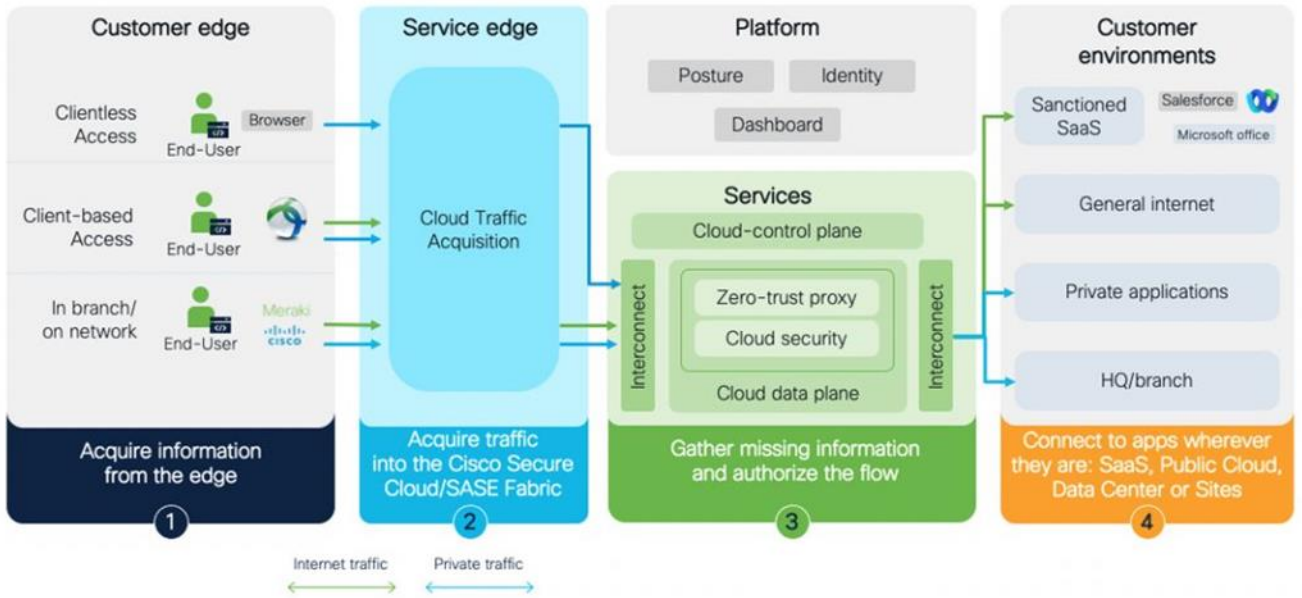
Claims 1, 2, 4, 8, 12-15, 17 & 20

Claim #17	Accused Instrumentalities
17. The network system of claim 15, wherein dynamically ordering the list of available servers is further based on one or more second ordered lists of available servers transmitted to one or more second endpoint devices among the plurality of endpoint devices.	See Cisco SD-WAN system described above at independent claim 15, at 15-b. See: https://www.cisco.com/c/en/us/solutions/collateral/enterprise/design-zone-security/sase-sse-ag.html Page Source: https://www.cisco.com/c/en/us/solutions/collateral/enterprise/design-zone-security/sase-sse-ag.html  Image Source: https://www.cisco.com/c/dam/en/us/solutions/collateral/enterprise/design-zone-security/sase-sse-ag.docx/_jcr_content/renditions/sase-sse-ag_10.jpg **Figure 11.** Digital Experience Monitoring Overview

UMBRA TECHNOLOGIES LTD.'S FIRST INFRINGEMENT ANALYSIS

U.S. Patent No. 11,108,595 – Defendant Cisco Systems, Inc. - UMBRA Technologies Ltd. ("UMBRA")

Claims 1, 2, 4, 8, 12-15, 17 & 20

Claim #20	Accused Instrumentalities
20. The network system of claim 15, wherein the control server receives tunnel information associated with the one or more first tunnels via the global virtual network, and wherein dynamically ordering the list of available servers is further based on the tunnel information.	See: https://blogs.cisco.com/networking/the-path-to-unified-sase-with-cisco-sd-wan-and-cisco-secure-connect  Image Source: https://storage.googleapis.com/blogs-images/ciscoblogs/1/2023/03/sdwan-sase-fig2-2-1536x576.jpg NOTE: "Acquire information from the edge", "Acquire traffic into the Cisco Secure Cloud / SASE Fabric", "Gather missing information and authorize the flow", "Connect to APPs wherever they are" - these aspects utilize "tunnel information" to route traffic from origin edge to destination edge to the control server so that server availability lists for each device will have contextual routing information for traffic to reach destination via most ideal path through the overlay network.

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Claims 1, 2, 4, 8, 12-15, 17 & 20

Clm. 20 Cont.	Also see: https://www.cisco.com/c/en/us/solutions/collateral/enterprise/design-zone-security/sase-sse-ag.html

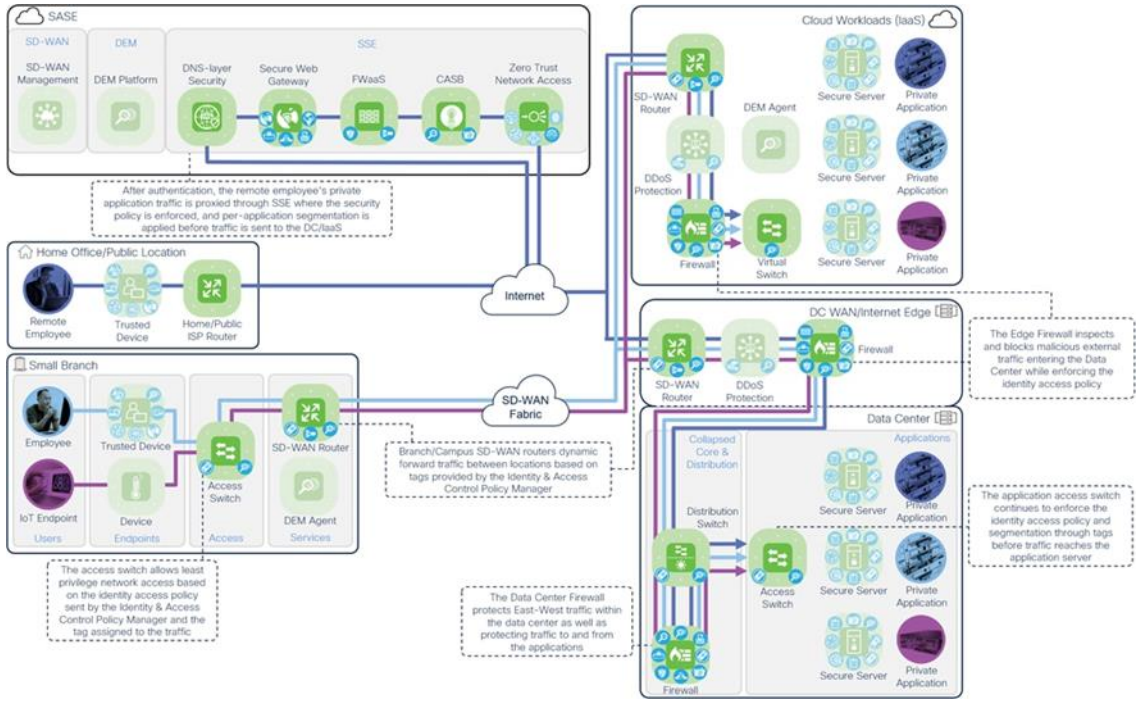

Figure 20. SASE/SSE Network & Cloud Security (Private Application) Business Flows with SAFE Capabilities
Finally, a digital monitoring experience agent is installed at the branch, data center, and IaaS environment to monitor ISP and SD-WAN performance close to the users and close to the hosted private applications used by employees.
NOTE: The above figure depicts different routes at base and overlay networks.

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Claims 1, 2, 4, 8, 12-15, 17 & 20

Caveat: The notes and/or cited excerpts utilized herein are set forth for illustrative purposes only and are not meant to be limiting in any manner. For example, the notes and/or cited excerpts, may or may not be supplemented or substituted with different excerpt(s) of the relevant reference(s), as appropriate. Further, to the extent any error(s) and/or omission(s) exist herein, all rights are reserved to correct the same.